

## GLOSSARY

°C	The symbol for degrees Celsius.
<	The symbol for less than.
>	The symbol for greater than.
%	The symbol for percent.
µeq/L	The symbol for microequivalents per litre.
µg/m <sup>2</sup>	The metric symbol for micrograms per square metre.
µg/m <sup>3</sup>	The metric symbol for micrograms per cubic metre.
<b>abandonment and reclamation</b>	The act of permanently stopping operations, removing facilities and restoring land to a productive state.
<b>abiotic</b>	Nonliving components, physical or chemical, of the environment, such as temperature, light and nutrients.
<b>Aboriginal person</b>	Any Indian, Inuit or Métis person who was born in the Northwest Territories or who is descended from an Aboriginal person born in the Northwest Territories.
<b>acid deposition</b>	The deposition of acid-forming compounds, i.e., sulphur and nitrogen, in the environment through wet and dry processes. Although wet acid deposition is often referred to as acid rain, other forms of precipitation, e.g., dew, snow and hail, can also be a source of wet deposition.
<b>active layer</b>	A surface layer of ground or soil above permafrost that is alternately frozen each winter and completely thawed each summer, i.e., seasonally frozen ground surface above the permafrost.
<b>Active I Channel</b>	A watercourse with perennial flow, discernible banks and substrate, and a drainage area less than 1,000 km <sup>2</sup> . In winter, it might be partially frozen to the bottom because of groundwater input, beaver activity, or large pools and deep water.
<b>Active II Channel</b>	A watercourse with intermittent flow, discernible banks and substrate, and a drainage area less than 1,000 km <sup>2</sup> . In winter, it is frozen to the bottom or dry below the ice surface.

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<b>adverse effect</b>	The impairment of, or damage to, the environment or health of humans, or damage to property, or loss of reasonable enjoyment of life or property.
<b>adult fish</b>	Fish that are fully developed and have attained sexual maturity.
<b>AENV</b>	The abbreviation for Alberta Environment.
<b>aeolian</b>	Materials eroded, transported or deposited by wind action, usually including poorly graded, well-sorted medium to fine sand and coarse silt that is sorted and noncompacted.
<b>aerosols</b>	Small droplets or particles suspended in the atmosphere, typically containing sulphur. They are usually emitted naturally, e.g., in volcanic eruptions, and as the result of anthropogenic, i.e., human, activities, such as burning fossil fuels.
<b>airshed</b>	The geographic area associated with movement of air and emissions. An area over which model predictions are made and within which emissions from different facilities interact. Emissions from one airshed are not considered to interact with emissions from other airsheds.
<b>alkalinity</b>	The total quantity of base in water that can be determined by titration with a strong acid.
<b>all-weather road</b>	A paved or unpaved, i.e., gravel, road that is open to traffic all year.
<b>alluvial</b>	Pertaining to, or consisting of, alluvium, or material deposited by flowing water.
<b>alluvium</b>	Unconsolidated mineral material, usually clay, sand, silt and gravel, deposited by flowing water.
<b>ambient air quality</b>	The quality of any unconfined portion of the atmosphere, open air or surrounding air.
<b>ambient sound</b>	The all-encompassing, background sound associated with a given site, usually a composite of sounds from many sources, near and far, with no particular sound being dominant.
<b>ambient temperature</b>	The existing temperature of the surrounding air in a given location.
<b>anadromous species</b>	Fish that travel up freshwater streams from the sea to spawn.

<b>anchor fields</b>	The three natural-gas fields, Niglintgak, Taglu and Parsons Lake, whose production will provide the initial volume of gas shipped in the Mackenzie Gas Project pipelines.
<b>angling</b>	Capturing fish with a hook and line.
<b>anoxic</b>	Lacking oxygen.
<b>annual</b>	A plant that completes its life cycle in a single growing season.
<b>anthropogenic</b>	Materials made or modified by humans.
<b>aquatic</b>	Growing in, living in or frequenting water. Also, occurring, or situated, in or on, water.
<b>aquifer</b>	A water-saturated, permeable body of rock capable of storing and transmitting groundwater to wells and springs under ordinary hydraulic gradients.
<b>aspect</b>	The compass orientation toward which a slope faces.
<b>A-weighting</b>	Adjusting sound levels measured to account for the frequency content of the measured sound based on a frequency response similar to that heard by the human ear.
<b>bank</b>	The rising slope or face of ground bordering a watercourse. It is located above the stream bed and below the level of rooted vegetation.
<b>bankfull width</b>	The width of a watercourse when it completely fills its channel and the elevation of the water surface reaches the upper margins of the bank.
<b>baseflow</b>	A portion of the stream discharge that is derived from natural storage, i.e., outflow from groundwater, large lakes or wetlands, or sources other than rainfall that create surface runoff.
<b>baseline</b>	A surveyed condition that serves as a reference point to which later surveys or assessments are coordinated or correlated.
<b>beaded stream</b>	A stream with a series of small pools or lakes connected by short stream segments.
<b>bedrock</b>	Solid rock that underlies soil or any other unconsolidated surficial cover.
<b>benthic</b>	Dwelling on, or relating to, the bottom of a body of water.

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<b>benthos</b>	Organisms that live on the bottom of a waterbody, in or near the substrate.
<b>biodiversity</b>	All aspects of biological diversity, especially species richness, genetic variation and the complexity of ecosystems.
<b>biophysical</b>	Referring to the air, noise, aquatic (groundwater, hydrology, water quality and fisheries) and terrestrial (soils, landforms, permafrost, vegetation and wildlife) conditions in the project area.
<b>bog</b>	Waterlogged, spongy ground consisting primarily of mosses that can decay and develop into peat.
<b>boulder</b>	A large rock with a diameter exceeding 256 mm.
<b>boulder garden</b>	An aquatic habitat characterized by an abundance of boulders that provide instream cover for fish.
<b>blanket</b>	A thin, widespread sedimentary deposit of relatively uniform thickness that is relatively thin in relation to areal extent.
<b>blanket slope drainage</b>	A type of drainage that occurs in subdued topography where basin types are not definable. Water flows downslope in a sheet-like manner.
<b>blocks</b>	An angular particle larger than 256 mm.
<b>Brunisol soils</b>	Soils with horizons sufficiently developed to exclude them from the Regosolic Order, but lacking the degrees and kinds of horizon development specified for soils of the other orders.
<b>bryophyte</b>	Plants, including mosses, liverworts and hornworts, which are characterized by their lack of vascular tissues and some other terrestrial adaptations of vascular plants.
<b>BTEX</b>	The abbreviation for benzene, toluene, ethylbenzene and xylene.
<b>building downwash</b>	The downward movement of emissions on the downwind side of a building.
<b>building wake</b>	A zone on the downwind side of a building or structure where building downwash can occur.
<b>calcareous</b>	Containing calcium or magnesium carbonate.
<b>canopy</b>	The cover of branches and foliage formed by tree crowns or the tallest layer of vegetation in an area.

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<b>carbonate rock</b>	A sedimentary rock, such as limestone or dolomite, consisting mainly of carbonate minerals.
<b>carnivore</b>	Any mammal of the order Carnivora, such as cats, dogs, bears and seals, with powerful jaws and teeth adapted for stabbing, tearing, and eating flesh.
<b>carrion</b>	Dead, putrefying flesh.
<b>CASA</b>	The abbreviation for the Clean Air Strategic Alliance.
<b>cation</b>	An atom, group of atoms, or compound that has a positive electrical charge.
<b>CEA</b>	The abbreviation for cumulative effects assessment.
<b>CH<sub>4</sub></b>	The chemical symbol for methane
<b>channel</b>	A natural or artificial waterway that periodically or continuously contains moving water, has a definite bed, and has banks that confine the water at low to moderate streamflow.
<b>channel fen</b>	A nutrient-rich wetland with uniform vegetation confined to narrow, well-defined drainage channels.
<b>chlorophyll a</b>	The photosynthetic pigment found in higher plants and algae.
<b>clay</b>	A soil particle less than 2 µm in diameter.
<b>climate</b>	The prevailing weather conditions of an area. Climate is a measure of the long-term averages, i.e., normals, of key atmospheric variables, such as temperature, precipitation and wind.
<b>climate normals</b>	Long-term average conditions of temperature and precipitation.
<b>CO</b>	The chemical symbol for carbon monoxide.
<b>cobble</b>	A rock fragment larger than a pebble and smaller than a boulder, with a diameter of 64 to 256 mm.
<b>colour</b>	When referring to water, the measure of the amount of humic material, i.e., dark-coloured organic material.
<b>colluvial</b>	Pertaining to colluvium.

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<b>colluvium</b>	Loose, heterogeneous and incoherent deposit of soil material or rock fragments usually deposited by mass-wasting.
<b>compressor station</b>	A facility containing equipment that is used to increase pressure to compress natural gas for transportation in a pipeline.
<b>conductance</b>	The measure of electrical conductance in a water sample. Conductance is an indicator of salinity.
<b>conductivity</b>	A measure of the ability of material to carry an electrical current.
<b>confluence</b>	The place where two watercourses meet and flow together to form one.
<b>coniferous forest</b>	Typically, evergreen trees or plants that are cone bearing, such as pine trees.
<b>Construction Phase</b>	The phase of a project preceding the Operations Phase, during which project facilities and infrastructure are assembled and installed, and connected and tested to ensure that they operate as designed.
<b>COSEWIC</b>	The abbreviation for the Committee on the Status of Endangered Wildlife in Canada.
<b>creek</b>	A small lotic system that serves as the natural drainage course for a small drainage basin.
<b>Cretaceous</b>	The geological period between about 144 and 65 million years before present.
<b>crevasse filling</b>	A short, straight ridge made up of unconsolidated sediments (till or sand and gravel) that were initially deposited in a crevasse, and subsequently deposited on the earth's surface as the ice melted.
<b>critical habitat</b>	The habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species, according to the Species at Risk Act.
<b>critical load</b>	The highest load that will not cause chemical changes leading to long-term harmful effects on the most sensitive ecological systems.
<b>Cryosol soils</b>	Soils formed in either mineral or organic materials, with permafrost within 1 m of the surface, or within 2 m if the active layer of the soil profile has been strongly cryoturbated. They can be associated with wetlands, tundra or taiga forest conditions.

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<b>cryoturbation</b>	The churning and stirring of soil caused by repeated cycles of freezing and thawing. It includes frost heaving and surface subsiding during thaws.
<b>cumulative effects</b>	Changes to the environment caused by an action, including projects and activities, in combination with other past, present and future human actions.
<b>Cumulic Regosol soils</b>	Soils that develop in areas where periodic disturbance or deposition occurs.
<b>dB</b>	The abbreviation for decibel.
<b>dBA</b>	The abbreviation for A-weighted decibel.
<b>deadfall</b>	A tangled mass of fallen trees and branches.
<b>decibel</b>	The logarithmic unit associated with sound pressure level, sound power level or acceleration level.
<b>decommissioning</b>	The act of taking a processing plant or facility out of service and isolating equipment, to prepare for routine maintenance work, suspending or abandoning.
<b>denning site</b>	A location where a bear creates its den.
<b>deposition rate</b>	The amount of material deposited over a given area per unit of time.
<b>Devonian</b>	The geological period between about 408 and 360 million years ago.
<b>diadromous species</b>	Fish that migrate between salt and fresh waters.
<b>direct economic effect</b>	Effect on industries (firms) that expand production to satisfy increased demand created by the project.
<b>direct employment</b>	Employment related to a direct economic effect.
<b>direction</b>	Referring to an effect, the ultimate long-term trend of the effect. It can be adverse, neutral or positive, or a combination of these.
<b>discharge</b>	The rate of flow at a given moment, expressed as volume per unit of time.
<b>discontinuous permafrost</b>	A zone of permafrost containing patches of unfrozen ground, such as beneath large rivers and lakes.

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<b>dispersal</b>	The spontaneous movement of young wildlife away from their mothers as a result of innate behaviour or unfavourable environmental conditions.
<b>dissolution</b>	A process of chemical weathering whereby mineral and rock material passes into solution, e.g., calcium carbonate being removed from limestone.
<b>dissolved organic carbon</b>	A measure of the amount of organic carbon dissolved in water. Dissolved organic carbon is an indicator of the amount of humic material in surface waters.
<b>dissolved oxygen</b>	A measure of the amount of oxygen dissolved in water. Dissolved oxygen concentration provides an indication of the suitability of surface waters for aquatic life
<b>ditching</b>	The process of cutting a long, narrow, steep-walled excavation in the ground. Also known as <i>trenching</i> .
<b>diversity</b>	The variety and abundance of organisms and communities, and their patterns of distribution within an area.
<b>DO</b>	The abbreviation for dissolved oxygen.
<b>downstream</b>	In the direction of flow of a watercourse.
<b>drainage</b>	The pattern followed by the waters of an area as they pass or flow off in surface or subsurface streams.
<b>drainage basin</b>	An area in which surface runoff collects and from which it is carried by a drainage system, such as a river and its tributaries.
<b>drinking water guideline</b>	Concentration of a chemical in surface water, below which there is negligible risk to human health or aesthetic considerations related to the use of water for drinking.
<b>drumlin</b>	A hill-shaped deposit of till.
<b>DTFN</b>	The abbreviation for Dene Tha' First Nation.
<b>dune</b>	A low mound, ridge, bank or hill of wind-blown, usually sand-sized material that occurs along shorelines and in deserts.
<b>duration</b>	Referring to an effect, how long an effect will occur, or how long it will take a valued component to recover from an impact.

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<b>Dystric Brunisol soils</b>	Soils that develop in acidic parent materials, usually noncarbonated, with no organic surface horizons.
<b>earthflow</b>	A mass-movement landform and process characterized by downslope translation of soil and weathered rock over a discrete basal shear surface, i.e., landslide, within well defined lateral boundaries.
<b>ECO<sub>2</sub></b>	The abbreviation for equivalent carbon dioxide.
<b>ecological land classification</b>	A means of classifying landscapes by integrating landforms, soils and vegetation components.
<b>ecological zone</b>	A regional ecological area used on the Mackenzie Gas Project to describe regional vegetation differences based on changes in climate, physiography, terrain, soil and permafrost with increasing latitude along the Mackenzie Valley. Also known as <i>ecozone</i> .
<b>ecosystem</b>	An integrated and stable association of all living organisms and the nonliving physical and chemical factors of their environment, within a defined physical location.
<b>ecozone</b>	A regional ecological area used on the Mackenzie Gas Project to describe regional vegetation differences based on changes in climate, physiography, terrain, soil and permafrost with increasing latitude along the Mackenzie Valley. Also known as <i>ecological zone</i> .
<b>edge effect</b>	The difference in the amount of light, wind, precipitation, humidity and temperature at the edge of a habitat compared with its interior.
<b>EIS</b>	The abbreviation for environmental impact statement.
<b>ELC</b>	The abbreviation for ecological land classification.
<b>endemic species</b>	A species that is native and indigenous to a particular area, and which has a limited geographic range.
<b>entrain</b>	To trap chemicals, particles or fish in water – mechanically through turbulence, chemically through a reaction, or by dredging.
<b>environment</b>	The components of the earth including: <ul style="list-style-type: none"><li>• land, water and air, including all layers of the atmosphere</li><li>• all organic and inorganic matter and living organisms</li><li>• the interacting natural systems in these components</li></ul>

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<b>environmental effect</b>	For a project, any change that the project might cause in the biophysical environment. Also, any change to the project that might be caused by the environment.
<b>environmental impact assessment</b>	The process of evaluating the biophysical, social and economic effects of a proposed project.
<b>environmental impact statement</b>	A report containing the environmental impact assessment.
<b>ephemeral drainage</b>	Drainage that only occurs for a short time, usually after periods of rainfall or snowmelt, and that discontinues during dry seasons.
<b>equivalent carbon dioxide</b>	The greenhouse gas potential of a compound relative to carbon dioxide.
<b>ericaceous shrub</b>	A low, woody shrub in, or related to, the plant family Ericaceae, i.e., heather family.
<b>erosion</b>	The wearing away of the land surface by running water, wind, ice or other geological agents, including such processes as gravitational creep.
<b>esker</b>	A winding ridge of irregularly stratified sand, gravel and cobbles, deposited under a glacier by a rapidly flowing glacial stream.
<b>EUB</b>	The abbreviation for Alberta Energy and Utilities Board.
<b>Eutric Brunisol soils</b>	Soils that develop in basic parent materials, usually carbonated, with no organic surface horizons.
<b>eutrophic</b>	Referring to nutrient-rich lakes and rivers.
<b>extirpation</b>	Local extinction of a species, with it disappearing from a locality or region without becoming extinct throughout its range.
<b>facilities</b>	Structures of the pipeline system, including compressor and pump stations, block valves, pigging facilities, heater stations and meter stations.
<b>fan</b>	A gently sloping, fan-shaped landscape feature usually found at a place where there is a decrease in gradient.
<b>fen</b>	Low land, such as peat land, that is wholly or partly covered by water, especially in the upper regions of old estuaries and around lakes. These areas do not drain naturally.

<b>fibric</b>	Having more than two-thirds of the organic soil material consisting of recognizable plant tissue.
<b>Fibrisol soils</b>	Soils composed primarily of undecomposed fibric organic material. They are predominantly Sphagnum moss in peat deposits.
<b>fine sediment</b>	Sediment comprising silts and clays, consisting of particles less than 62 µm in diameter.
<b>fine-grained</b>	A combination of well stratified clay, silt and fine sand.
<b>fines</b>	Particulate material, less than 2 mm in diameter, including sand, silt, clay and fine organic material.
<b>flaring</b>	Converting hydrocarbon gases to safe compounds by combustion.
<b>flat habitat</b>	Stream habitat characterized by low-velocity and nearly laminar flow, differentiated from pool habitat by high channel uniformity and depositional substrate.
<b>floodplain</b>	A low-lying area adjacent to a river or lake that can be inundated during periods of seasonally high water levels, such as floods.
<b>fluvial</b>	Pertaining to, or produced by, the action of a stream or river. Also, pertaining to anything existing, growing, or living in or near a river or stream.
<b>fluvial deposit</b>	Pertaining to, or consisting of, material deposited by flowing water. Also known as <i>alluvial deposit</i> .
<b>forage</b>	Grasses, herbs and small shrubs that are used by wildlife for food.
<b>forage fish</b>	Fish species used as a food source by other fish.
<b>forb</b>	Any herbaceous plant, other than a grass, i.e., a weed or a broadleafed, nonwoody plant.
<b>fracture</b>	Any break in a rock, including joints, cracks and faults.
<b>freezeup</b>	Freezing up of a watercourse or waterbody in the fall or winter.
<b>freshet</b>	Rapid temporary rise in stream discharge and water level caused by heavy rains or rapid melting of snow and ice.
<b>friable</b>	Easily crumbled or reduced to powder.

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<b>frost boil</b>	A low mound of excess water and mud formed by local differential frost heaving at a location favourable for the formation of segregated ice, and accompanied by the absence of an insulating cover of vegetation.
<b>frost bulb</b>	A frozen zone, typically formed around a chilled pipe, in otherwise unfrozen ground.
<b>frost heave</b>	The raising of a surface caused by ice in the underlying soil. This movement results from alternate thawing and freezing. Frost heaving generates stress on vertical support members of pipelines in the Arctic and, as a result, also on the pipeline.
<b>fry</b>	A young fish at the post-larval stage. Can include all fish stages from newly hatched to fingerling.
<b>fur-bearer</b>	An animal whose coat, when dressed as a pelt, is of value in the marketplace.
<b>gas pipeline</b>	The proposed gas pipeline that would extend from the Inuvik area facility, parallel to the NGL pipeline along the Mackenzie River to Norman Wells, and continue south to connect to an extension of the existing Alberta system south of the Northwest Territories–Alberta boundary. Also known as the <i>Mackenzie Valley Pipeline</i> .
<b>gathering pipelines</b>	Four pipelines, also known as laterals, which transport natural gas and NGLs from the anchor fields to the Inuvik area facility. These include the Niglintgak lateral, Taglu lateral, Parsons Lake lateral and Storm Hills lateral.
<b>gathering system</b>	A system of pipelines and associated facilities that include four gathering pipelines, the Inuvik area facility, the NGL pipeline and related facilities, such as valves, pig launchers and receivers.
<b>GDP</b>	The abbreviation for gross domestic product.
<b>geographic extent</b>	Quantitative measurement of the area within which an effect occurs.
<b>gene flow</b>	The passage and establishment of the characteristics of one breeding population into the gene pool of another population.
<b>genetic materials</b>	In relation to the soil or landform, the parent or source material for a soil type.
<b>GHG</b>	The abbreviation for greenhouse gas.

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<b>gill net</b>	A net that captures fish by entangling the head, gills or fins.
<b>glacial</b>	Involving glaciers and moving ice. Usually pertaining to processes associated with glaciers.
<b>glaciofluvial material</b>	Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice.
<b>glaciolacustrine</b>	Pertaining to lakes fed by melting glaciers, or to the deposits forming in the lakes.
<b>gley</b>	Soil mottling, caused by partial oxidation of, and reduction of, constituent ferric iron compounds as a result of conditions of intermittent water saturation.
<b>GNWT</b>	The abbreviation for the Government of the Northwest Territories.
<b>graminoid</b>	A plant with a grass-like growth form, including rushes, grasses and sedges, which are members of the Cyperaceae and Poaceae families.
<b>granular resources</b>	Sand, gravel, clay, quarry materials and silt.
<b>gravel</b>	A substrate particle between 2 and 64 mm in diameter.
<b>greenhouse gas</b>	Any of various gases, e.g., CO <sub>2</sub> , CH <sub>4</sub> , NO <sub>2</sub> , that are more transparent to incoming solar radiation than to reflected radiation from the earth, and that contribute to the heating of the earth's surface and lower atmosphere.
<b>groundwater</b>	Subsurface water that is recharged by infiltration and enters streams through seepage and springs.
<b>ground-truthing survey</b>	The measurement of various properties, such as temperature and land use, conducted on the ground to validate or calibrate observations made from satellites or aircraft.
<b>gully</b>	A long, narrow ravine formed by the modification of unconsolidated and consolidated surfaces by various processes, such as running water, mass movement and snow avalanching.
<b>ha</b>	The metric symbol for hectare.
<b>HA</b>	The abbreviation for habitat availability.
<b>habitat</b>	The places or environment where a plant or animal naturally or normally lives or grows.

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<b>hardness</b>	A measure of the amount of alkaline earth compounds, such as calcium and magnesium, dissolved in water.
<b>HDD</b>	The abbreviation for horizontal directional drilling.
<b>HE</b>	The abbreviation for habitat effectiveness.
<b>headwater</b>	The source and upper part of a stream or river.
<b>heath</b>	A level to undulating upland area with a dense cover of low ericaceous shrubs and other dwarf shrubs.
<b>holding habitat</b>	A place with low water velocity where fish can rest and conserve energy.
<b>home range</b>	The area within which an animal lives and which can be described by season, by year, or by an animal's lifetime.
<b>horsetail</b>	Plants with hollow and rush-like stems, and scale-like leaves forming sheaths at the nodes. They are of the genus <i>Equisetum</i> and are allied to the ferns.
<b>humic</b>	Referring to material from the humus portion of soil, which is the dark, relatively stable organic part, so well decomposed that the original sources cannot be identified.
<b>hummock</b>	A rounded or conical mound or hillock, usually of equal dimensions and not ridge-like.
<b>hummocky</b>	An assemblage of nonlinear, often chaotic forms that are rounded or irregular in cross-profile.
<b>hydrology</b>	The science dealing with the waters of the earth, including their properties, circulation, distribution and reaction with the environment.
<b>ICC</b>	The abbreviation for industrial and commercial centre.
<b>ice-wedge polygon</b>	A large nonsorted polygon bordered by intersecting ice-wedges occupying fissures formed by contraction of the ground and comprising polygonal patterns on ground underlain by permafrost.
<b>icing</b>	A mass or sheet of ice formed on the ground surface during the winter by successive freezing of sheets of water that seep either from the ground, a river or a spring.
<b>imperil</b>	Endanger or pose a threat to.

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<b>impoundment</b>	A body of water contained by a barrier, such as a beaver dam.
<b>indirect economic effect</b>	The result of project contractors and suppliers purchasing additional required inputs from other firms.
<b>indirect employment</b>	Employment related to an indirect economic effect.
<b>induced economic effect</b>	The result of firms expanding production because of direct and indirect effects, hiring more staff and paying wages, thereby increasing household income. Households, after withdrawing a portion for taxes and savings, spend this income, which in turn increases demand for other commodities.
<b>induced employment</b>	Employment related to an induced economic effect.
<b>infrastructure</b>	Basic facilities, such as transportation, communications, power supplies and buildings that enable an organization, project or community to function.
<b>instream</b>	Within the wetted perimeter of the stream channel.
<b>instream cover</b>	Areas with structure, e.g., boulders, rock and logs, in a stream channel that provide aquatic organisms with shelter or protection from predators or competitors.
<b>inundation</b>	Flooding, or covering with standing or flowing water.
<b>Inuvik area facility</b>	The processing facility to be located near Inuvik where gas and liquids will be processed and separated, then delivered to the gas and NGL pipelines.
<b>invasive species</b>	An introduced species that outcompetes native species for space and resources.
<b>invertebrate</b>	Large group of lower animals that lack a spinal column.
<b>I-O Model</b>	The abbreviation for the Statistics Canada input–output model.
<b>juvenile fish</b>	Young fish, similar in form to an adult, but not yet sexually mature.
<b>kame</b>	A low, long, steep-sided mound of glacial drift, commonly stratified sand and gravel, deposited by a subglacial stream as an alluvial fan or delta at the terminal margin of a melting glacier.
<b>keq/ha</b>	The metric symbol for kiloequivalents per hectare.

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<b>keq/ha/a</b>	The metric symbol for kiloequivalents per hectare per year.
<b>kettle</b>	A basin or bowl-shaped depression in surficial materials, often containing a lake that was formed by the melting of a detached block of stagnant ice buried in the morainal deposit.
<b>key indicator</b>	A factor used to measure the status of a valued component.
<b>kg/ha/a</b>	The metric symbol for kilograms per hectare per year.
<b>KI</b>	The abbreviation for key indicator.
<b>km</b>	The metric symbol for kilometre.
<b>km<sup>2</sup></b>	The metric symbol for square kilometre.
<b>km/h</b>	The metric symbol for kilometres per hour.
<b>kt/a</b>	The metric symbol for kilotonnes per year.
<b>L</b>	The metric symbol for litre.
<b>L/s</b>	The metric symbol for litres per second.
<b>L<sub>eq</sub></b>	The abbreviation for energy equivalent sound level.
<b>labour force</b>	Individuals 15 years of age or older that are working or actively seeking employment.
<b>labour income</b>	The sum of wages and salaries plus supplementary labour income.
<b>lacustrine</b>	Pertaining to, produced by, or inhabiting a lake or lakes.
<b>lacustrine deposits</b>	Sediments that have settled from suspension and underwater gravity flow, such as turbidity currents, in bodies of standing water.
<b>landform</b>	A physical, recognizable, naturally formed feature of land, having a characteristic shape and produced by natural causes. Landforms include major forms, such as plains, mountains or plateaus, and minor forms, such as hills, valleys or alluvial fans.
<b>landscape</b>	The fundamental features of a specific heterogeneous land area, including the biological and physical interactions between and within its composite ecosystems.

<b>Large River Channel</b>	A watercourse with perennial flow, a wetted width greater than 25 m, and a drainage area greater than 1,000 km <sup>2</sup> .
<b>lateral</b>	A gathering pipeline that connects the production area facilities to the Inuvik area facility.
<b>limestone</b>	A sedimentary rock composed mainly of calcium carbonate (CaCO <sub>3</sub> ), principally in the form of calcite.
<b>limiting factor</b>	Anything that has a measurable controlling effect on a species' growth or expansion, or on a biophysical element's continued capability to support its ecosystem.
<b>littoral zone</b>	Shallow shore area of a waterbody where light can usually penetrate to the bottom and that is often occupied by rooted aquatic plants. The extent of the plants might mark the boundaries of the zone.
<b>LSA</b>	The abbreviation for local study area.
<b>Luvisol soils</b>	Soils with an eluvial horizon and illuvial horizon. They develop under forest or forest–grassland transition, in a moderate to cool climate, and are associated with well drained, fine-textured parent materials.
<b>m</b>	The metric symbol for metre.
<b>m<sup>3</sup></b>	The metric symbol for cubic metre.
<b>m/a</b>	The metric symbol for metres per year.
<b>m<sup>3</sup>/d</b>	The metric symbol for cubic metres per day.
<b>m<sup>3</sup>/s</b>	The metric symbol for cubic metres per second.
<b>m<sup>3</sup>/s/m</b>	The metric symbol for cubic metres per second per metre.
<b>Mackenzie Gas Project</b>	A project that will develop three onshore natural gas fields in the Mackenzie Delta and transport natural gas by pipeline to market in northwestern Alberta by 2009. The project comprises the natural gas fields, wells, gathering pipelines and associated facilities, work camps, material stockpiles and shipping sites, roads, borrow sites, and other associated infrastructure.
<b>macro-</b>	A prefix meaning large, comprehensive, or visible to the naked eye.
<b>macrophyte</b>	A plant visible to the naked eye, especially one in an aquatic habitat.

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<b>magnitude</b>	Relating to an effect, the severity or intensity of the effect. It is rated as low, moderate or high.
<b>major ion</b>	Dissolved elements that are abundant in surface and ground waters. Major ions that are common in freshwater include bicarbonate, calcium, carbonate, chloride, magnesium, potassium, sodium, sulphate and sulphide.
<b>mean</b>	The value or location of the central number or individual in a population, i.e., set of numbers, arranged in order of size.
<b>median</b>	The middle measurement in an ordered set of data.
<b>meltwater</b>	Water derived from melting ice or snow, especially glacier ice.
<b>mesic</b>	A soil with a mean annual temperature between 8 and 16°C, with a summer–winter variation of more than 5°C.
<b>Mesisol soils</b>	Soils that are slightly more decomposed than Fibrisols. They contain moderately decomposed organic material and are found in areas that favour slightly greater rates of decomposition than Fibrisol locations.
<b>meteorology</b>	The atmospheric character of a region.
<b>mg/L</b>	The metric symbol for milligrams per litre.
<b>µg/m<sup>3</sup></b>	The metric symbol for micrograms per cubic metre.
<b>microsite</b>	A small area or feature that exhibits localized characteristics different from the surrounding area and, therefore, potentially supports plants or communities uncommon in the surrounding area, e.g., microsites created by a rock outcrop with thin soils, or the cool, shaded areas created in a site by the presence of slash.
<b>migratory bird</b>	Any migratory bird referred to in the <i>Migratory Birds Convention Act</i> , including the sperm, eggs, embryos, tissue cultures and parts of the bird.
<b>mineral soil</b>	Soil containing primarily mineral materials, the presence of which predominantly determines the properties of the soil. Mineral soil generally evolves from fluvial, lacustrine or glacier-deposited parent materials, and except for an organic surface or litter layer, contains less than 30% organic material by weight.
<b>minnow</b>	The common name for any freshwater fish of the family Cyprinidae. Also used for any small or young fish.

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<b>mitigation</b>	The elimination, reduction, or control of a project's adverse effects, including restitution for any damage to the environment caused by such effects through avoidance, replacement, restoration, compensation or other means.
<b>mixedwood forest</b>	A forest that includes deciduous and coniferous trees.
<b>mm</b>	The metric symbol for millimetre.
<b>Mm<sup>3</sup></b>	The metric symbol for million cubic metres.
<b>mm/a</b>	The metric symbol for millimetres per year.
<b>moderately well-drained soil</b>	Soil from which water is removed slowly in relation to supply because of imperviousness or lack of gradient.
<b>moisture regime</b>	The available moisture supply for plant growth on a relative scale, assessed through an integration of species composition and soil, and site characteristics.
<b>monitoring</b>	Periodic inspection to meet the following objectives: <ul style="list-style-type: none"><li>• observe and report on compliance with regulatory approval conditions</li><li>• confirm effectiveness of approved protection measures</li><li>• verify the accuracy of impact predictions</li><li>• identify any effects not predicted in the impact assessment</li></ul>
<b>moraine</b>	A deposit of glacial till.
<b>morphological</b>	Pertaining to physical attributes of a waterbody and the methods for measuring those attributes.
<b>moult</b>	The process, often seasonal, of an animal shedding hair, feathers, shell, horns or an outer layer.
<b>Mt</b>	The metric symbol for megatonnes.
<b>muskeg</b>	A peat bog or tussock meadow, with variably woody vegetation, often occurring in areas of permafrost.
<b>N/A</b>	The abbreviation for not applicable.
<b>N<sub>2</sub>O</b>	The chemical symbol for nitrous oxide.

**GLOSSARY**

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<b>natural gas</b>	A compressible mixture of hydrocarbons with a low specific gravity that occurs naturally in a gaseous form.
<b>natural gas liquids</b>	Hydrocarbons that are gaseous in the reservoir, but that will separate out in liquid form at the pressures and temperatures at which separators normally operate. The liquids consist of varying proportions of butane, propane, pentane and heavier fractions, with little or no methane or ethane.
<b>natural variability</b>	The variability that is inherent or natural to the media, objects, or people being studied.
<b>NGL</b>	The abbreviation for natural gas liquid.
<b>NGL pipeline</b>	The pipeline connecting the Inuvik area facility with the Enbridge Pipeline facilities at Norman Wells.
<b>NGTL</b>	The abbreviation for NOVA Gas Transmission Ltd.
<b>Niglintgak field</b>	The anchor field to be developed by Shell Canada Limited, which includes three well pads, one gas conditioning facility, flow lines and supporting infrastructure. The gas conditioning facility might be barge-based or land-based.
<b>Niglintgak lateral</b>	The gathering pipeline connecting the Niglintgak gas conditioning facility to a connection point on the Taglu lateral at the outlet of the Taglu gas conditioning facility.
<b>noise</b>	Unwanted sound.
<b>NO<sub>2</sub></b>	The chemical symbol for nitrogen dioxide.
<b>NO<sub>x</sub></b>	The chemical symbol for oxides of nitrogen.
<b>noxious weed</b>	Weeds that are able to spread rapidly to disturbed areas, but are generally restricted by well-established natural groundcover. Alberta legislation requires that noxious weeds be controlled and propagation inhibited.
<b>nuisance weed</b>	Weeds that are common and are often native species. Because of their abundance and biological suitability, they are difficult to eradicate. Alberta legislation requires that the spread of nuisance weeds be prevented.

<b>nutrient</b>	An environmental substance, i.e., element or compound, such as nitrogen or phosphorus, that is necessary for the growth and development of plants and animals.
<b>nutrient regime</b>	A measure of the essential nutrients available for plant growth, assessed through an integration of species composition and soil and site characteristics.
<b>O<sub>3</sub></b>	The chemical symbol for ozone.
<b>oligotrophic</b>	A waterbody that contains low levels of nutrients, i.e., sustains a low level of algae.
<b>omnivore</b>	An organism that eats both vegetable and animal matter.
<b>open water</b>	A portion of lake or stream that remains unfrozen or is not covered by ice during winter.
<b>Operations Phase</b>	The phase of a project during which the pipeline and associated facilities are operated.
<b>organic compound</b>	A chemical compound consisting of carbon chains or rings, except for carbon dioxide and carbonates, and also containing hydrogen with or without oxygen, nitrogen or other elements.
<b>Organic Cryosol soil</b>	The soil of peatlands, underlain by permafrost.
<b>organic matter</b>	The fraction of a soil that contains plant and animal residues in various stages of decomposition.
<b>Organic soil</b>	Any soil comprising at least 30% organic matter. Most are saturated throughout the year and occur in poorly and very poorly drained depressions.
<b>organic veneer</b>	Organic deposits that are less than 1 m thick.
<b>Orthic Regosol soil</b>	The soil that develops in areas where periodic disturbance or deposition occurs.
<b>outflow</b>	The amount of water flowing out of a drainage basin, e.g., groundwater seepage and stream water.
<b>overburden</b>	The loose soil, silt, sand, gravel or other unconsolidated materials overlying bedrock.
<b>overwinter</b>	To live or keep alive through the winter.

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<b>overwintering habitat</b>	Habitat used by aquatic organisms during winter.
<b>PAH</b>	The abbreviation for polycyclic aromatic hydrocarbon.
<b>PAI</b>	The abbreviation for potential acid input.
<b>palsa</b>	A mound of peat that develops as a result of the formation of a number of ice lenses beneath the surface of the ground.
<b>parent material</b>	The unconsolidated mineral and organic material from which soil develops.
<b>Parsons Lake field</b>	The anchor field to be developed by ConocoPhillips Canada (North) Limited and ExxonMobil Canada Properties. Initially, the field will consist of the north pad for the well sites and gas conditioning facility. A second well pad will be developed five to 10 years after the north pad.
<b>Parsons Lake lateral</b>	The gathering pipeline connecting the Parsons Lake gas conditioning facility to a connection point at the Storm Hills pigging facility.
<b>particulate matter, respirable</b>	Fine particulate matter that is small enough to be breathed deeply into the respiratory tract.
<b>passerine</b>	Any perching bird of the order Passeriformes, having feet with three toes pointing forward and one pointing backward, including sparrows and most land birds.
<b>passive monitoring</b>	The collection of gas-or vapour-pollutant samples from the atmosphere by diffusion through a static air layer, or by permeation through a membrane.
<b>patterned fen</b>	Low-lying peatland characterized by patterned ridges and pools, e.g., strings aligned perpendicular to the water flow and parallel to surface elevation.
<b>patterned ground</b>	A collective term for the regular surface features, such as stone polygons, frost boils and stone stripes, characteristic of ground that is subject to intensive freeze–thaw action.
<b>peat</b>	An organic deposit consisting of decayed or partially decayed, humified plant materials that have decomposed in wet or waterlogged, anaerobic environments.
<b>peatland</b>	An organic wetland with accumulations of more than 40 cm of peat.

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<b>pellet, faecal</b>	The smallest collectable unit of an animal's droppings.
<b>percentile</b>	The proportion of values in a distribution that a specific value is greater than or equal to.
<b>percolate</b>	The process of water oozing, seeping or filtering through soil without a definite channel or course.
<b>perennial spring</b>	A spring that flows during all seasons of the year.
<b>permafrost</b>	Perennially frozen ground, occurring wherever the ground temperature remains below 0°C for two or more consecutive years.
<b>pH</b>	A measure of the relative acidity or alkalinity of a liquid. The pH scale ranges from one to 14, with 7 being neutral, 1 being the most acidic and 14 the most alkaline.
<b>phenol</b>	Organic compounds released by plants, decaying vegetation and some human activities. Anthropogenic sources of phenols include coal and wood distilleries, oil refineries, chemical plants and human waste.
<b>phenology</b>	The science of studying periodic biological phenomena in relation to climate, especially seasonal changes.
<b>physiographic region</b>	An area that has similar geological structure and climate and whose pattern of topographic relief and landforms differs from that of adjacent regions.
<b>physiognomic</b>	Based on the external appearance, physical structure or growth form of a plant or plant community.
<b>pig</b>	An in-line scraper, i.e., brush, blade cutter or swab, that is forced through a pipeline by fluid pressure. The pig is used to remove scale, sand, water and other foreign matter from the interior surfaces of the pipe. In hydrostatic testing, the pig is used inside the line to push air ahead of the test water and to push water out after the test.
<b>pig receiver</b>	A piping arrangement whereby an incoming pig can be diverted into a receiving cylinder, isolated and then removed.
<b>PIL</b>	The abbreviation for project inclusion list.

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<b>pipeline corridor</b>	The 1-km-wide area, defined for the purpose of the EIS biophysical baseline and effects assessment studies, that centres on the combined right-of-way for the gas and NGL pipelines, from the Inuvik area facility to the NGTL interconnect facility in Alberta.
<b>plain</b>	A flat, undulating or rolling area, with few prominent hills or valleys, that is usually at low elevation in reference to surrounding areas, and that might have considerable overall slope and local relief.
<b>plant community</b>	A distinct grouping of plant species often associated with a particular set of environment conditions, such as terrain, soil, permafrost and water. Also known as <i>vegetation community</i> .
<b>PM</b>	The abbreviation for particulate matter.
<b>PM<sub>2.5</sub></b>	Respirable particulate matter with a nominal diameter smaller than 2.5 µm.
<b>polygon</b>	Patterns of polygonal cracks formed on a level or gently sloping surface from the displacement of rocks, soil and peat due to frost or ice action.
<b>polygonal ground</b>	A ground surface consisting of polygonal arrangements, i.e., polygons, of rock, soil, and vegetation, formed on a level or gently sloping surface by frost action.
<b>polychlorinated biphenyl</b>	Mixtures of synthetic organic chemicals that come in various forms, including oily liquids, solids and hard resins.
<b>polycyclic aromatic hydrocarbons</b>	An organic compound containing only hydrogen and carbon, consisting of multiple six-carbon rings. They are a product of incomplete combustion of organic materials, such as wood or fossil fuels.
<b>pool</b>	A discrete portion of a watercourse channel, featuring increased depth and reduced velocity relative to adjacent riffle and run habitats. It is produced by channel scour.
<b>poorly drained soil</b>	Soil from which water is removed so slowly in relation to supply that the soil remains wet for most of the time that it is not frozen.
<b>potential acid input</b>	The sum of the wet and dry deposition of sulphur and nitrogen compounds that have the potential to contribute to acidification of the receiving environment.
<b>project components</b>	The three anchor fields, Niglintgak, Taglu, and Parsons Lake, the gathering system and the gas pipeline.

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<b>project-specific effect</b>	An effect caused by the project. Such effects are sometimes referred to as direct effects as they only include the project's contribution to the effect (as opposed to cumulative effects, in which case other projects would contribute to the effect).
<b>ppm</b>	The abbreviation for parts per million.
<b>precipitation</b>	Any or all of the forms of water particles, whether liquid or solid, that fall from the atmosphere and reach the ground.
<b>precipitation monitoring</b>	The collection of rainfall and snowfall using a vertically oriented apparatus that is open to the atmosphere.
<b>preglacial</b>	Referring to the time before a period of glaciation.
<b>production area</b>	The area that encompasses all project components located north of the Inuvik area facility, including Niglintgak, Taglu and Parsons Lake fields, the gathering pipelines and associated facilities, infrastructure, and the 1-km-wide buffer area surrounding each of these project components, defined for the purpose of the EIS biophysical baseline and effects assessment studies.
<b>progressive bank erosion</b>	Erosion indicated by the presence of undercut banks.
<b>project, the</b>	The abbreviation for the Mackenzie Gas Project.
<b>project proponents</b>	The five organizations (Imperial Oil Resources Ventures Limited, the APG, ConocoPhillips Canada (North) Limited, Shell Canada Limited and ExxonMobil Canada Properties) that are undertaking the Mackenzie Gas Project.
<b>quadrat</b>	A sampling unit of a predefined size that is used to repeatedly sample vegetation in a given area. Quadrats can be rectangular, square or circular in shape and vary in size, depending on the vegetation community being sampled.
<b>rapidly drained soil</b>	Soil from which water is removed rapidly in relation to supply.
<b>rapids</b>	A channel type with high velocity, turbulent flow, and very coarse substrate. It is deeper than a riffle.
<b>rear</b>	To feed and provide nursery habitat for larval and juvenile fish.
<b>recharge</b>	The addition of water into a groundwater system.

**GLOSSARY**

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<b>reclamation</b>	The process of re-establishing a disturbed site to a former or other productive use, not necessarily to the same condition that existed before disturbance. The land capability might be at a level different, i.e., lower or higher, than that which existed before the disturbance, depending on the goal of the process. Reclamation includes the management of a disturbed site and revegetation where necessary.
<b>Regosol soils</b>	Azonal soils from deep unconsolidated deposits that have no definite genetic horizon. They do not exhibit weathering or horizon formation typical of other soils, and are associated with active landforms, such as floodplains, colluvial slopes, beaches, thaw slumps and debris flows.
<b>relative abundance</b>	Usually referring to the abundance of animals, relative abundance indicates whether there are relatively more animals in one area than another, without necessarily revealing the actual number of animals in each area.
<b>relict</b>	Referring to a topographic feature that remains after other parts of the feature have been removed or have disappeared. Also, pertaining to a mineral, structure, or feature of a rock which represents features of an earlier rock and which persists in spite of processes tending to destroy it, such as metamorphism.
<b>residual effects</b>	Environmental or socio-economic effects that remain after mitigation has been applied.
<b>right-of-way</b>	The easement in which the pipeline will be installed and operated. The pipeline right-of-way width for the project will vary from 30 to 50 m, depending on pipe size and the number of pipes to be installed in the trench.
<b>riffle</b>	A channel type featuring high velocity relative to run habitat, but lower than rapids. The surface is broken by submerged or exposed bed material and the channel is shallow relative to other habitat types.
<b>riparian</b>	Situated or dwelling on the margin of a river or other waterbody.
<b>river</b>	A large, natural or human-modified freshwater stream that flows in a defined course or channel. It has considerable flow volume compared with its smaller tributaries.
<b>rolling</b>	An assemblage of parallel or subparallel linear forms with subdued relief.
<b>RSA</b>	The abbreviation for regional study area.

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<b>run</b>	A channel type featuring moderate to high current velocity relative to pool and flat habitats. Its water surface is largely unbroken. It is generally deeper than riffle and rapid habitats.
<b>runoff</b>	The water from rain and snow that flows over land to streams, ponds or other surface waterbodies. Also, the water from precipitation that does not infiltrate into the ground or evaporate.
<b>salinity</b>	A measure of the quantity of dissolved solids in water.
<b>sand</b>	Substrate particles between 0.062 and 2 mm in diameter.
<b>sandstone</b>	A type of sedimentary rock that contains a large quantity of weathered quartz grains.
<b>SARA</b>	The abbreviation for Species At Risk Act.
<b>scour</b>	Localized erosion of substrate from the stream bed by flowing water, when water velocity is high.
<b>sedge</b>	A grass-like plant that is adapted to grow in usually moist habitats.
<b>sediment</b>	Fragmented material from weathered rocks and organic material that is suspended in, transported by, and eventually deposited by, air, water, or ice.
<b>sediment quality</b>	Refers to the physical, chemical or biological properties of sediments relative to their use or value as an environment for aquatic life.
<b>sedimentary rock</b>	Rock formed by the deposition and lithification of material derived from existing rocks.
<b>seep</b>	A small groundwater discharge that slowly percolates to the surface of the ground or into a stream.
<b>SEIA</b>	The abbreviation for socio-economic impact assessment.
<b>seral stages</b>	The stages of ecological succession of a plant community, for example, from young stage to old stage. The characteristic sequence of biotic communities that successively occupy and replace each other, altering, in the process, some components of the physical environment over time.

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<b>shale</b>	A fine-grained laminated or fissile sedimentary rock made up of silt or clay-sized particles. It usually comprises about one-third quartz, one-third clay materials and one-third minerals, such as carbonates, iron oxides, feldspars and organic matter.
<b>side channel</b>	An elongated extension off a main channel that can become separated from the main channel under low flow conditions, and dry up.
<b>sinkhole</b>	A closed surface depression in regions of karst topography produced by the subsurface limestone geology or the collapse of cavern roofs.
<b>silt</b>	Fine soil particles between 0.004 and 0.062 mm in diameter, carried by flowing water and deposited as sediment on the bottom or shore of a lake or stream.
<b>slide</b>	A mass-movement process in which rock or sediment moves downslope along a planar surface.
<b>slump</b>	Mass sliding of semi-consolidated sediment downslope under the influence of gravity.
<b>socio-economic effect</b>	For a project, any effect on a social or economic element, including direct effects as well as effects resulting from a change in the environment.
<b>SO<sub>2</sub></b>	The chemical symbol for sulphur dioxide.
<b>soil horizon</b>	A layer of surface soil or soil material parallel to the land surface, about 5 to 30 cm deep, that differs from adjacent layers in properties, such as colour, structure, texture, consistency, and chemical, biological and mineralogical composition.
<b>solifluction</b>	Slow gravitational downslope movement of saturated nonfrozen overburden across a frozen or otherwise impermeable substrate.
<b>sound level</b>	The A-weighted sound pressure level expressed in dBA.
<b>sp.</b>	The abbreviation for species (singular).
<b>sphagnum peat</b>	An organic deposit formed from partially decomposed mosses of the genus <i>Sphagnum</i> .
<b>spp.</b>	The abbreviation for species (plural).

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<b>spawning</b>	Fish reproduction process characterized by females and males depositing eggs and sperm into the water simultaneously or in succession so as to fertilize the eggs.
<b>spawning habitat</b>	Habitat selected by fish for spawning.
<b>species at risk</b>	An extirpated, endangered or threatened species or a species of special concern, as defined in the Species at Risk Act.
<b>species composition</b>	The species present in a given sampling area.
<b>species diversity</b>	A description of a biological community that includes both the number of species and their relative abundance. It provides a measure of the variation in the number of species in a region, depending on the variety of habitats and resources within habitats, and in part, on the degree of specialization of species to particular habitats and resources.
<b>spring</b>	A natural flow of water from the subsurface to the surface that usually occurs when the water table intersects the earth's surface.
<b>spring breakup</b>	The time of year when the temperature rises sufficiently to thaw ice, causing it to break up in rivers and lakes.
<b>spring freshet</b>	The annual spring increase of flow in streams and rivers in cold climates as a result of melting snow.
<b>stream</b>	A small, natural watercourse containing flowing water for at least part of the year.
<b>stream gradient</b>	The number of metres a watercourse drops per kilometre of its length, measured in the direction of flow. Also known as <i>stream slope</i> .
<b>string</b>	A narrow part of well-drained, elevated land found in patterned wetlands, usually dominated by shrubs.
<b>study area</b>	The area within the spatial boundaries of the scope of the biophysical environmental effects assessment.
<b>subdrain</b>	A subsurface drain used to guide water from a site.
<b>submergent vegetation</b>	Aquatic vegetation that grows with its roots under water and with leaves and stems that do not emerge above the surface of the water.
<b>subsidence</b>	The lowering of the earth's surface.

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<b>substrate</b>	Mineral and organic material forming the bottom of a watercourse or waterbody.
<b>succession</b>	The change in community composition over time, following a major disturbance.
<b>surficial</b>	Pertaining to, or occurring on or near, the earth's surface.
<b>swale</b>	A gently sloping natural or artificial depression in the ground for drainage of surface water.
<b>t</b>	The metric symbol for tonne.
<b>Taglu field</b>	The anchor field to be developed by Imperial Oil Resources Limited, consisting of one site that will include the well pads, gas conditioning facility, flow lines and supporting infrastructure.
<b>taiga</b>	A large temperate zone characterized by coniferous forests overlying glaciated areas, and areas of continuous and discontinuous permafrost.
<b>t/d</b>	The metric symbol for tonnes per day.
<b>TDS</b>	The abbreviation for total dissolved solids.
<b>temperature inversion</b>	A layer in the atmosphere in which temperature increases with altitude.
<b>terrace</b>	A single step-like form or assemblages of step-like forms where each form consists of a scarp face and a horizontal or gently inclined surface above it.
<b>textural classes</b>	The physical categories of soil according to particle size, including blocks, boulder, clay, mixed fragments, fine-grained, gravel, organic, rubble, sand, till, silt.
<b>texture</b>	The size, shape and sorting of particles in sediments and the proportion and degree of decomposition of plant fibre in organic sediments.
<b>thaw depth</b>	The depth to which the ground thaws in the summer. It is generally the maximum extent of the active layer, the portion of the ground that freezes and thaws at various depths depending on daily, seasonal and yearly cycles.
<b>thaw settlement</b>	Compression of the ground from thaw consolidation.
<b>thermokarst</b>	The melting of permafrost by heat transfer from waterbodies, either streams or lakes.

<b>till</b>	Heterogeneous sediment deposited directly by a glacier. Particles in this type of deposit have not been size sorted by the action of wind or water.
<b>TK</b>	The abbreviation for traditional knowledge.
<b>TOC</b>	The abbreviation for total organic carbon.
<b>toe slope drainage</b>	The drainage that occurs at the base of a slope, and is not confined by a basin or hollow. Water is received from upslope, sheet or channelled flow.
<b>topography</b>	The relief exhibited by a surface.
<b>total dissolved solids</b>	A measure of the total concentration of chemicals that are dissolved in water or that are in particulate form smaller than a standard-size filter, i.e., 0.45 microns, in water. These chemicals are usually salts, such as calcium, sodium, chloride and sulphate ions.
<b>total suspended solids</b>	A measure of the total concentration of suspended solids in water.
<b>TP</b>	The abbreviation for total phosphorus.
<b>track count</b>	A survey to determine the number of marks, such as rough paths, left by an animal.
<b>traditional knowledge</b>	Cultural knowledge that is based on direct observation or information passed on orally from other community members, developed from centuries of experience of living off the land.
<b>transect</b>	A line or strip across the earth's surface, or through any object, along which a survey or observations are made.
<b>tributary</b>	A stream that feeds or flows into a larger watercourse or waterbody.
<b>TSS</b>	The abbreviation for total suspended solids.
<b>tundra</b>	A vast treeless zone, between the ice cap and the tree line of North America and Eurasia, characterized by a short growing season and permanently frozen subsoil. Tundra refers both to the region and the vegetation growing within it.
<b>turbidity</b>	The relative clarity of a waterbody. A measure of the extent to which light penetration in water is reduced by the presence of suspended particles, such as silt, clay, organic matter and plankton.
<b>tussock</b>	A tuft or clump of graminoid plants forming a small hump.

GLOSSARY

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<b>understory</b>	A foliage layer occurring beneath, and shaded by, the main canopy of a forest.
<b>undifferentiated</b>	A layered sequence of several types of surficial material often outcropping on steep, erosional (scarp) slopes or rounded crests.
<b>undulating</b>	Gently sloping hill and hollow with multidirectional slopes. Local relief is generally greater than 1 m.
<b>ungulate</b>	A hoofed mammal.
<b>universal transverse mercator</b>	A mapping grid system for establishing fixed point locations using exact measurements.
<b>upland</b>	Terrain with sufficient topographical relief that the communities and processes of the site are not influenced by a surface or near-surface water table, and in which riparian vegetation or aquatic processes do not persist.
<b>upstream</b>	Direction from which a river or stream flows.
<b>UTM</b>	The abbreviation for universal transverse mercator.
<b>valued component</b>	Characteristic or feature that represents important environmental conditions identified by assessment specialists, communities or stakeholders.
<b>variety</b>	An individual or group usually fertile within the species to which it belongs, but differing from the species type in some qualities capable of perpetuation.
<b>vascular</b>	Specialized tissues used for transporting water, nutrients and products of photosynthesis throughout a plant body.
<b>vascular plant</b>	Plants, such as grasses or trees, which have a vascular or conductive system.
<b>VC</b>	The abbreviation for valued component.
<b>Vegetated Channel</b>	A watercourse with ephemeral flow, no discernible banks or sediment transport, and a drainage area less than 15 km <sup>2</sup> . It is primarily a shallow flow through shrubs and trees during spring runoff or rainfall and is dry most of the year.

<b>vegetation community</b>	A distinct grouping of plant species often associated with a particular set of environmental conditions, such as terrain, soil, permafrost and water. Also known as <i>plant community</i> .
<b>vegetation type</b>	A vegetation community or complex of communities that can be identified on air photos and is large enough to map. Vegetation types are clearly defined and named.
<b>very poorly drained soil</b>	Soil from which water is removed so slowly that the water table remains at or near the surface for most of the time when the soil is not frozen.
<b>VOC</b>	The abbreviation for volatile organic compound.
<b>volatile organic compound</b>	Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, methane, ethane, metallic carbides or carbonates, and ammonium carbonate, that evaporates readily and participates in atmospheric photochemical reactions, including the formation of ozone.
<b>water column</b>	A portion of water in a waterbody extending vertically from a given point on the surface to any depth. It is generally used to locate, describe or characterize the chemical and physical constituents at a given depth or depth range.
<b>water crossing</b>	A location where a pipeline or access road crosses a stream, river or lake.
<b>waterbody</b>	A body of water up to the high-water mark, including canals, reservoirs, oceans and wetlands, but not including sewage or waste treatment lagoons.
<b>watershed</b>	A region or area draining into a particular stream or river.
<b>weather</b>	The state of the atmosphere at a place and time considering temperature, cloud cover, humidity, wind and precipitation.
<b>well-drained soil</b>	Soil from which water is removed readily, but not rapidly.
<b>wetlands</b>	A broad group of wet habitats where the water table is usually at or near the surface, or the land is covered by shallow water.
<b>WHO</b>	The abbreviation for the World Health Organization.

